

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A two-pack polyurethane composition comprising a first pack and a second pack, wherein
  - the first pack **A** comprises
    - at least one polyurethane prepolymer **A1** with isocyanate end groups, synthesized from at least one polyisocyanate and at least one polyol;
    - the second pack **B** comprises
      - water, the water being in free form or reversibly bound to a carrier,
      - as well as at least one polyaldimine **B1**, which is ~~obtained~~synthesized from at least one polyamine **PA** with aliphatic primary amino groups and at least one low-odor aldehyde **ALD** by a condensation reaction with elimination of water, the condensation reaction being an equilibrium reaction where the equilibrium is mainly shifted toward the polyaldimine **B1**, the aldehyde **ALD** being as in formula (I) or formula (II),



where  $Y^1$  and  $Y^2$

either

each independently represent a hydrogen atom, a hydroxyl group, or an organic residue;

or

together represent a carbocyclic or heterocyclic ring, having a ring size between 5 and 8 atoms;

and Y<sup>3</sup>

either

stands for a substituted or unsubstituted alkyl group having at least one hetero atom;

or

stands for a branched or unbranched alkyl or alkylene group with at least 10 C atoms;

or

stands for a substituted or unsubstituted aryl or arylalkyl group;

or

stands for  $\text{O}-\text{R}^1$  or  $\text{O}-\overset{\text{O}}{\parallel}{\text{C}}-\text{R}^1$  or  $\overset{\text{O}}{\parallel}{\text{C}}-\text{O}-\text{R}^1$  or  $\overset{\text{O}}{\parallel}{\text{C}}-\text{R}^1$ , wherein R<sup>1</sup> stands for an aryl, arylalkyl, or alkyl group with at least 3 C atoms and in each case is substituted or unsubstituted;

and Y<sup>4</sup>

either

stands for a substituted or unsubstituted aryl or heteroaryl group, having a ring size between 5 and 8 atoms;

or

stands for  $\overset{\text{O}}{\parallel}{\text{C}}-\text{R}^2$ , with R<sup>2</sup> = alkyl, hydroxyl, or alkoxy;

or

stands for a substituted or unsubstituted alkenyl or arylalkenyl group with at least 6 C atoms;

wherein

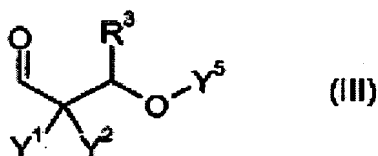
the polyaldimine B1 of the second pack B is used in an amount of 0.1 to 0.99 equivalents of aldimine groups per equivalent of isocyanate groups of the polyurethane prepolymer A1 of the first pack A;

at least one of the first and second pack comprises a filler; and

a mixed polyurethane composition resulting from mixing the contents of the two packs A and B is pasty.

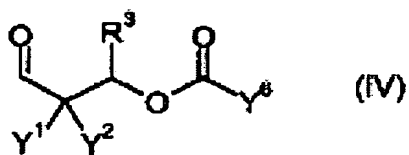
2. (Previously Presented) The two-pack polyurethane composition as in claim 1, wherein the heteroatom in  $Y^3$  is present in the form of an ether oxygen or a carboxyl, ester, or hydroxyl group.

3. (Previously Presented) The two-pack polyurethane composition as in claim 1, wherein the aldehyde **ALD** has formula (III),



where  $R^3$  and  $Y^5$  each independently stand for a hydrogen atom or for an alkyl or arylalkyl group.

4. (Previously Presented) The two-pack polyurethane composition as in claim 1, wherein the aldehyde **ALD** has formula (IV),



wherein

$R^3$  stands for a hydrogen atom or for an alkyl or arylalkyl group, and  $Y^6$

either

represents a hydrogen atom;

or

represents an alkyl or arylalkyl or aryl group, which optionally has at least one hetero atom, optionally contains at least one carboxyl group, and optionally contains at least one ester group;

or

represents a monounsaturated or polyunsaturated, linear or branched hydrocarbon chain.

5. (Previously Presented) The two-pack polyurethane composition as in claim 4, wherein  $R^3$  stands for a hydrogen atom, and

$Y^6$

either

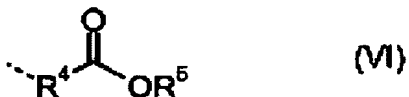
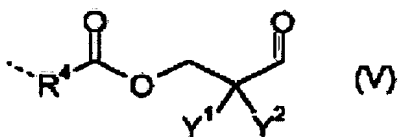
stands for a linear or branched alkyl chain with 11 to 30 carbon atoms, optionally with at least one hetero atom;

or

stands for a monounsaturated or polyunsaturated linear or branched hydrocarbon chain with 11 to 30 carbon atoms;

or

stands for a residue of formula (V) or (VI),



wherein

$R^4$  either

stands for a linear or branched or cyclic alkylene chain with 2 to 16 carbon atoms, optionally with at least one hetero atom;

or

stands for a monounsaturated or polyunsaturated, linear or branched or cyclic hydrocarbon chain with 2 to 16 carbon atoms;

and

$R^5$  stands for a linear or branched alkyl chain with 1 to 8 carbon atoms.

6. (Previously Presented) The two-pack polyurethane composition as in claim 4, wherein the aldehyde **ALD** used to synthesize the polyaldimine is obtained by means of an esterification reaction between a  $\beta$ -hydroxyaldehyde and a carboxylic acid, where the  $\beta$ -hydroxyaldehyde is synthesized, optionally *in situ*, from formaldehyde or paraformaldehyde and a second aldehyde.

7. (Previously Presented) The two-pack polyurethane composition as in claim 6, wherein the aldehyde **ALD** used to synthesize the polyaldimine is obtained by means of an esterification reaction between 3-hydroxypivalaldehyde and a carboxylic acid, where the 3-

hydroxypivalaldehyde is synthesized, optionally *in situ*, from formaldehyde or paraformaldehyde and isobutyraldehyde.

8. (Previously Presented) The two-pack polyurethane composition as in claim 6, wherein the carboxylic acid used to synthesize the aldehyde **ALD** is selected from the group consisting of lauric acid, myristic acid, palmitic acid, stearic acid, oleic acid, linoleic acid, linolenic acid, succinic acid, adipic acid, azelaic acid, and sebacic acid, mixtures thereof, and their industrial mixtures with fatty acids.

9. (Previously Presented) The two-pack polyurethane composition as in claim 1, wherein  $Y^1 = Y^2 = \text{methyl}$ .

10. (Previously Presented) The two-pack polyurethane composition as in claim 1, wherein the aldehyde **ALD** has formula (I) and  $Y^1$  stands for a hydroxyl group,  $Y^2$  stands for a hydrogen atom, and  $Y^3$  stands for an alkyl group with at least one hydroxyl group.

11. (Previously Presented) The two-pack polyurethane composition as in claim 1, wherein the polyamine **PA** with aliphatic primary amino groups is selected from the group consisting of 1,6-hexamethylenediamine, MPMD, DAMP, 2,2,4- and 2,4,4-trimethylhexamethylenediamine, 4-aminomethyl-1,8-octanediamine, IPDA, 1,3- and 1,4-xylylenediamine, 1,3- and 1,4-bis(aminomethyl)cyclohexane, bis(4-aminocyclohexyl)methane, bis(4-amino-3-methylcyclohexyl)methane, 3(4),8(9)-bis(aminomethyl)tricyclo[5.2.1.0<sup>2,6</sup>]decane, 1,2-, 1,3- and 1,4-diaminocyclohexane, 1,4-diamino-2,2,6-trimethylcyclohexane, polyoxyalkylene polyamines with two or three amino groups, and mixtures of two or more of the aforementioned polyamines.

12. (Previously Presented) The two-pack polyurethane composition as in claim 1, wherein for synthesis of the polyaldimine **B1**, the aldehyde **ALD** is used in stoichiometric proportion or in stoichiometric excess relative to the primary amino groups of the polyamine **PA**.

13. (Canceled)
14. (Previously Presented) The two-pack polyurethane composition as in claim 1, wherein the second pack **B** has at least one water molecule per aldimine group.
15. (Previously Presented) The two-pack polyurethane composition as in claim 1, wherein the polyol for synthesis of the polyurethane prepolymer **A1** of the first pack **A** has an average number of OH groups equal to 1.6 to 3.
16. (Previously Presented) The two-pack polyurethane composition as in claim 15, wherein the polyol is a polyoxyalkylene polyol.
17. (Previously Presented) The two-pack polyurethane composition as in claim 15, wherein the polyol is a polyoxyalkylene polyol with a degree of unsaturation  $< 0.02$  meq/g and a molecular weight  $M_n$  from 1000 to 30 000 g/mol.
18. (Previously Presented) The two-pack polyurethane composition as in claim 17, wherein the polyol is a polyol synthesized by means of DMC catalysis.
19. (Canceled)
20. (Previously Presented) A method for mixing the two-pack polyurethane composition as in claim 1, wherein the contents of the first pack **A** and the contents of the second pack **B** are blended by essentially uniform mixing.
21. (Previously Presented) A method for mixing the two-pack polyurethane composition as in claim 1, wherein the contents of the first pack **A** and the contents of the second pack **B** are blended by essentially laminar mixing.
22. (Previously Presented) A method for mixing as in claim 20, wherein the mixing is carried out by means of a dispensing attachment containing two interlocking dispensing rotors, and optionally by means of a static mixer mounted at the outlet of this dispensing attachment.

23. (Previously Presented) A method for application of the two-pack polyurethane composition as in claim 1, the method comprising:

- Mixing the contents of the two packs **A** and **B** to form a mixed polyurethane composition;
- Making contact between at least one solid surface and the mixed polyurethane composition; and
- Curing the mixed polyurethane composition.

24. (Previously Presented) A method for application as in claim 23, wherein the contact with the solid surface is made by applying a bead to the surface.

25. (Canceled)

26. (Previously Presented) An article which is tightly bonded with a mixed and cured polyurethane composition after the contents of the two-pack polyurethane composition of claim 1 is mixed and cured.

27. (Previously Presented) The two-pack polyurethane composition as in claim 1, wherein at least one of the first and second pack comprises a catalyst for the hydrolysis of the polyaldimine **B1**.

28. (Previously Presented) The two-pack polyurethane composition as in claim 27, wherein the catalyst is an organic carboxylic acid selected from the group consisting of salicylic acid and benzoic acid.

29. (New) The two-pack polyurethane composition as in claim 1, wherein the polyaldimine **B1** of the second pack **B** is used in an amount of 0.4 to 0.8 equivalents of aldimine groups per equivalent of isocyanate groups of the polyurethane prepolymer **A1** of the first pack **A**.